



Missions for
America
Semper vigilans!
Semper volans!

The Coastwatcher

Publication of the Thames River Composite Squadron
Connecticut Wing
Civil Air Patrol

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SCHEDULE OF COMING EVENT

18-25 OCT-NER Staff College-New Jersey
28 OCT-TRCS Meeting-Mitchell Ceremony-
Uniform of the Day is Blues.

01 NOV-CTWG SAREX
04 NOV-TRCS Meeting-Fruit Sale Ends
08 NOV-CTWG Pilots' Meeting-MMK
08-09 NOV-SLS Course-Meriden
11 NOV-TRCS Meeting
18 NOV-TRCS Meeting
25 NOV-TRCS Meeting

02 DEC-TRCS Meeting
09 DEC-TRCS Meeting
16 DEC-TRCS Annual Holiday Party

ANNUAL CITRUS FRUIT FUNDRAISER



Featuring Exquisite
Grapefruit

&

Succulent Navel
Oranges



Cadets, Parents, and Senior Members are reminded that the final date for turning in money is Tuesday, 04 November. Only TWO weeks are left to solicit orders. Do not wait. Act now.



Uncle Steve Wants You To Sell Fruit



2010

Uncle Steve says "Go Forth and Be fruitful and Multiply Your Customers."

CADET MEETING NOTES

21 October, 2014

by
C/MSgt Virginia Poe

After drill practice, C/SMSgt Poe taught an AE lesson on the history of manned spaceflight.

C/1Lt Tynan taught a leadership lesson on Chapter 1 of Learn to Lead and a second mini-lesson on communication.

LtCol Rocketto reminded cadets about the importance of the fruit sale.

C/SMSgt Poe reported on the Cadet Conference which occurred on October 18.

The Pilots Meeting and the session on Ops Training Funds were covered by deAndrade and Farley. The issue of problems with WIMRS 2.0 was raised.

Meers and Simpson attended the Emergency Service Training Plan for 2015 and Communication Rapid Deployment/HF ALE familiarization

Simpson also took in the seminar on grant writing and the Communications Officer seminar while Meers went to the seminar on Encampment and the Cadet Protection Program.

Rocketto and Farley sat in on a session on Region Glider Activities and the use of the new glider launching winch.

SENIOR MEETING NOTES

21 October, 2014

by
Maj Gervais Raoul Lufberry
Wallingford Squadron

The meeting was dedicated to reports on the seminars and training at the Connecticut Northeast Region Conference.

Maj Farley listened to the presentation on the Becker direction finding system.

LtCol Rocketto presented two: "Flying in Foreign Climes" which related his experiences earning pilot licenses in Peru, and Australia and the unique experience of operating in Israeli airspace and landing at Bar Yehuda on the Dead Sea, the lowest airport in the world, 1,266 feet below sea level.

Rocketto's second presentation was a series of physics demonstrations using cheap, easily available equipment and materials to illustrate important principles in aerospace technology. An emphasis was placed on the style of presentation.

Manzer and Meers and went to both of these sessions.

QUALITY CADET UNIT AWARD

The Squadron has earned the Quality Cadet Unit Award for 2014 and joins eight other CTWG squadrons and 290 squadrons nationally which qualified for this honor.

The criteria for the award are quantitative: three Training Leaders of Cadets graduates, the achievement of the Aerospace Excellence Award and percentage participations in orientation flights and encampment. Cadet achievement, unit growth, and retention are counted also.

RECRUITING



Cadet and Senior Recruiting Ribbon



Squadron quality and strength requires a robust recruiting program. Cadets are eligible for a recruiting ribbon by enlisting new members. Seniors must convince a total of seven individuals to join.

*They are never
too young for a
sales pitch.
Andrew
Carpenter
considers
enlistment in 11
years and nine
months.*



CTWG-NER CONFERENCE

Six TRCS members and a guest joined over 200 other members of CAP's Northeast Region (NER) in Windsor Locks last week for a joint CAP conference presenting nine states.

Squadron representatives were LtCols John deAndrade and Stephen Rocketto, Maj J. Scott Farley, Lts David Meers and Sonia Simpson and Aerospace Education Member Rachael Manzer. C/SMSGT V. Grace Poe was our sole Cadet.

Pre-conference courses were offered and Meers completed the NER Aerospace Education Academy at which Rocketto was an instructor.

The General Assembly

On Saturday, the events began with a General Assembly at which the visiting dignitaries were introduced followed by the inevitable safety briefing.

Then National Commander Maj Gen Joseph Vazquez and NER Commander Daniel Leclair addressed the convocation. Their remarks were followed by NER "of the Year" plaques to both Senior Members and Cadets and the presentation of Spaatz Achievements and Gill Rob Wilson Awards.

After the General Assembly, Poe attended the Northeast Regional Cadet Advisory Council Meeting at which the new officers were elected, an open forum which discussed positives and negative aspects of the cadet program. CAP icon, Col Mary Feik then recounted his incredible career in aerospace from the Golden Age of the '30s, through WWII and the Cold War to today.

The afternoon session consisted of 32 seminars on topics pertinent to CAP. The report on these sessions is in the notes in the Senior Meeting section.

The static exhibits were sparse. The Cadet Contest offered five exhibits on the theme of future space exploration.

CTWG Historian Capt Christopher Keenan set up three tables containing memorabilia, artifacts, insignia, pictures, and reports from the history of CAP and the CTWG.

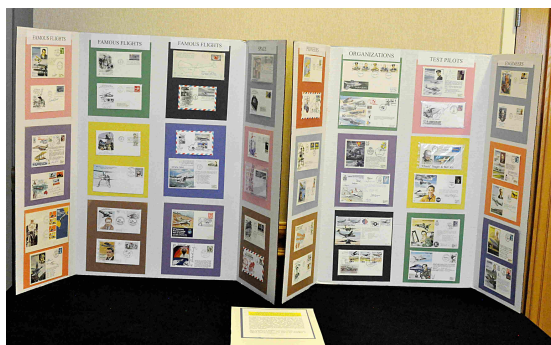
Thames River Composite Squadron members, Capt Edward Miller and Rocketto collaborated to offering a table of twelve World War II aircraft models, all the same scale. The unifying theme was that they were all U.S. aircraft which were operated by our allies and acquired either through direct purchase or lend-lease. The models all carried the national liveries of one of our foreign allies: Great Britain, the Soviet Union, and the Free French. The display was backed by a poster with a picture of each of the aircraft and a commentary on their wartime employment.



Miller's Models

LtCol Rocketto, CTWG Director of Aerospace Education, set up two poster boards on which were mounted 48 First Day Covers. A First Day Cover (FDC) is an envelope or card bearing a stamp which is cancelled on the day the stamp is initially placed on sale by the postal authorities. A typical FDC will have a "First Day of Issue" cancellation, a cachet which provides information about the subject, and sometimes, a pertinent postage stamp. They are generally issued to commemorate events, honor individuals, or historically important places or objects.

The exhibited FDC celebrated aviation pioneers, famous flights, test pilots, aeronautical engineers, organizations, and space exploration.



FDC Collection

Rocketto was assisted in transport, set-up, presentation delivery, and break-down by deAndrade, Meers, and Manzer.

*The Banquet
deAndrade Honored*

Formal banquet and awards ceremony was held in the evening attended by Manzer, deAndrade, and Rocketto.

TRCS's own LtCol John deAndrade was selected as CTWG Senior of the Year.

LtCol deAndrade was cited for exemplary service as a member of the Connecticut Wing during the current calendar year and has demonstrated

consistent and superior long-term performance at both the squadron and wing level over an extended period of time. At Thames River Composite Squadron, deAndrade holds positions as both Standards/Evaluation Officer and Communications Officer. In the former position, deAndrade has observed and critically reviewed aircrew training and provided support and training for squadron aviation missions. In the latter position, he established an ICUT training program which at one point achieved 100% qualifications by active senior squadron members. The program continues with new enrollees and has at its goal, the earning of ICUT communications proficiency by the time that a member reaches Level One status.



Maj Gen Joseph R. Vazquez, CAP National Commander, congratulates LtCol deAndrade.

He is an active squadron member, flies Long Island Sound Patrols, counter-drug missions, SAR, and trains members. He dedicated long hours and served as mentor and primary flight instructor for C/Maj Brendan Flynn who earned the private pilot rating and gained entry to the US Coast Guard Academy.

On the Wing level, LtCol deAndrade worked assiduously to upgrade his qualifications, achieved Incident Commander-3 and has served

in this leadership position on three SAREXs. During the last year, deAndrade was Incident Commander for two AFRCC missions. One of these missions resulted in a "find." LtCol deAndrade directed an air crew to stand by the vessel and wait for the Coast Guard, a critical decision since the USCG could not pick up the distress signal. In addition, he has served with the Standards/Evaluation section and has been responsible for upgrading the G1000 database for the last 6 years.

LtCol deAndrade, an Air Force Academy graduate, holds a Master Level in Standards and Evaluation, a Senior Level in Emergency Services, and Technician Levels in Operations and Flight Operations. Emergency Services achievements include the previously mentioned Incident Commander-3, Air Operations Branch Director, Planning Section Chief, and Operations Section Chief.

He also holds almost all CAP flight qualifications up to and including G1000 Instructor Pilot, Check Pilot Examiner, and Instrument Pilot. A graduate of the USAF Academy, deAndrade was a rated USAF pilot and flew the North American-Rockwell B-1B and the Boeing B-52s and KC-135s. He currently flies the Boeing 757 and 767 for Delta Airlines.

His professionalism, judgment, and the enthusiasm which he exhibits serves as a paradigm for Squadron and Wing officers. His tenacity is especially noteworthy. Once he accepts a mission, he does not quit but will expend considerable energy to meet his commitments.

LtCol deAndrade's dynamic contributions to our programs exemplify the spirit of volunteerism which is a foundation of Civil Air Patrol operations. The recognition of his contributions are richly deserved.

Alas, the mighty are often brought low. When a Roman general was offered a triumph, he rode a chariot in the city, a wreath upon his head and his soldiers, captives, and booty in precession. A

slave stood beside him in the chariot repeating over and over again, the sentence, "*Sic Transit Gloria*" meaning "All fame is fleeting."

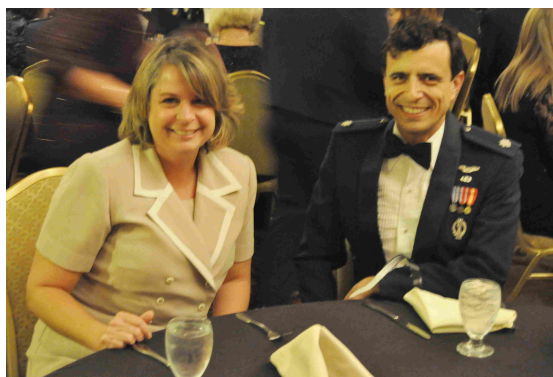
As the dinner wound down, a garish rite of display occurred. Customarily, Wing Commanders leap to their feet, strip off their formal jackets, and display loud and gaudy shirts. The assorted Colonels, one a lady, gathered on the dance floor to display their plumage. John, displaying the *chutzpah* for which he is noted joined them, a mere Lieutenant Colonel, and stripping off his formal dinner wear revealed his custom made shirt, tailored in the Philippines, adorned with multiple images of "Tweety Bird." A coterie of judges, obviously lacking in taste, awarded first prize to a lesser garment with John taking second place. *Sic Transit Gloria*.



Johnnyd exhibits his shirt of many colors and marathoner's physique.

Manzer, a teacher and CAP Aerospace Education Member who works closely with Rocketto was introduced. Manzer has just returned from the Aviation Hall of Fame at the Museum of the U.S. Air Force where she received the Scott Crossfield Award as Aerospace Teacher of the Year. Manzer was also CAP's National Teacher of the Year in 2010 and has been selected as one of the Pathfinder Seven Teachers who will receive a ride

in space on a commercial space vehicle.



Manzer and deAndrade at the banquet table.

Favorable comments were received about the quality of the seminars. Meers said that the information offered in the HF/ALE meeting was both informative and valuable and would require further discussion at a Squadron meeting.

In general, the Conference was well run and offered a chance to obtain information and meet fellow NER Capsters not available at other venues.

TRCS PRIVATE PILOT GROUND SCHOOL

The first class of the Squadron's Private Pilot Ground School commenced on 19 October. The school is designed to prepare Cadet Private Pilot candidates for the Federal Aviation Administration's written test, one required step in the process in acquiring a Private Pilot certificate. Classes are held on Sunday and last for two to three hours.

The participants were C/CMSgt Matthew Johnstone, C/TSgt Austin Eichelberg, C/A1C Alexander deAndrade, C/Amn Matthew Carasone, and Cadet Collin Sitz. One of the Cadets, deAndrade has already soloed and Johnstone attended the abbreviated ground school at the 2014 CTWG Encampment.

LtCol John deAndrade, a Certified Flight Instructor, and LtCol Stephen Rocketto, an

Advance Ground Instructor are the instructors.

Students were given a printed handout of the day's syllabus and instruction was presented in required personal documentation, the medical certificate/student pilot certificate, and requirements about recency of flight experience, privileges and limitations of a student and private pilot, an introduction to airspace visual flight rules weather minimums, passenger briefing, and minimum altitudes. Cadets were also briefed on the special rules which govern CAP flights under CAPR 60-1. A demonstration and discussion of Newton's First Law of Motion as applied to the four forces which affect an airplane in flight followed and the class concluded with an informal review quiz.

SQUADRON LEADERSHIP S COURSE OFFERED

The CTWG will offer a Squadron Leadership Course at Meriden Airport on 8-9 November. SLS is required for advancement to Level II of the CAP Professional Development Sequence.

The SLS provides CAP's senior members with a basic understanding of CAP operations at the squadron level and how those operations affect CAP's national missions. Participants will learn more about CAP customs, core values, and communications. Case studies, discussion, and group assignments are integral facets of the SLS.

The course fee is \$25. For further information, contact the Course Director, Maj Roger Malagutti at rmalagutti@aol.com or call at 203-597-7106.

WING-WIDE PILOTS MEETING

There will be a Wing Wide Pilot Meeting at Meriden airport on Saturday, 08 November.

The plan is to conduct o-flights from 0900 to 1300 and hold a pilots meeting (lunch provided) from 1300 to 1500.

Col Chapman, CTWWG Commander will speak

to the pilots about implementation of FY15 flying, and the Wing's future flying plans. If time allows, WMIRS 2.0 and CAPF 104 issues will be discussed.

If you can fly a CT Wing plane in, please do so. Plan to arrive in time to start conducting O-flights at 0900. The cadets who need o-flights and ground staff to handle the O-flight WMIRS entries will be there.

If you can do o-flights or plan to just attend the pilots' meeting, please contact Maj Johnny Burke at stonyburke@hotmail.com or Maj Roger Malagutti at Rmalagutti@aol.com for planning of a flight schedule and lunches.

AEROSPACE CURRENT EVENTS

Third X-37B Flight Ends

The unmanned space plane, the Boeing X-37B, returned to Vandenburg AFB after a record 674 day orbital mission. This is the third flight for the vehicle and its total time in space, 1367 days, exceeds the total time of all 135 NASA Space Shuttle missions by 33 days.



X-37B touching down at Vandenburg Air Force Base (photo credit" Boeing)

However, most of the Space Shuttle flights were public. The X-37B's missions are cloaked in a blanket of secrecy. An Air Force publicity release states that a wide range of technologies are being tested but no specific information has been released.

KC-46 Woes for Boeing

The apparent success of the X-37B may serve to sweeten the sour taste which is Boeing's penalty for the aggressive bidding which led to their winning the contract to build the next aerial tanker of the USAF.

The \$51 billion contract for 179 KC-46 tankers, a derivative of the Boeing 767 airliner,. As might be expected, the program is lagging behind its originally planned schedule and estimates indicate that the excess costs to date are around \$1 billion.

Boeing has offered a revised development and production schedule. The hope is that "first flight" will occur early next year and combat testing will start in 2016 with a first buy of a dozen aircraft in 2017.

AEROSPACE HISTORY

The X Planes Part III

Schweizer X-26 Frigate

All of the X planes discussed so far have either been high speed rocket planes or experiments in vertical take-off and landing. The Schweizer X-26 is a modified Schweizer 2-32 sailplane and are still operating today. The genesis of the Frigate lay in a particular problem at the U.S. Navy Test Pilot School at Patuxent River, Maryland.



*X-26 on display at an airshow.
(photo credit: Roy K. Heitman, USN)*

Many early jet fighters suffered from an instability called yaw-roll coupling. Short winged aircraft with relatively heavy fuselages were most susceptible to this phenomenon. Under certain flight conditions, the mass of the fuselage, when disturbed, caused a yaw and roll which could not be overcome by the wing and rudder control surfaces. The motion was violent. In 1953, Chuck Yeager was almost killed when the Bell X-1A which he was flying went out of control and lost 50,000 feet before recovery. Mel Apt was killed in 1956 when the Bell X-2 went out of control due to yaw-roll coupling.

In order to give the students in the school experience with yaw-roll coupling, the Navy decided to adapt a sailplane rather than use the more dangerous jet fighters. A sailplane operates at much slower speed and the yaw and roll rates are slower and easier to control. Nonetheless, three of the original four ordered crashed and two pilots were killed. The Navy replaced them and today, two X-26A aircraft are still flown at Pax River.

Even more interesting are the offspring of the X-26A. Lockheed converted two of them to powered aircraft, QT-2, which used a Continental O-200 engine, the same one found in Cessna 150s. "ST" stood for "Quiet Thruster" and the addition of special drive systems and low speed propellers created a near silent airplane. A further modification, the QT-2PC added special night vision avionics and camouflage and were evaluated as observation aircraft during our late unpleasantness in Vietnam. After a successful test, the two aircraft were returned to the Navy and re-designated X-26B

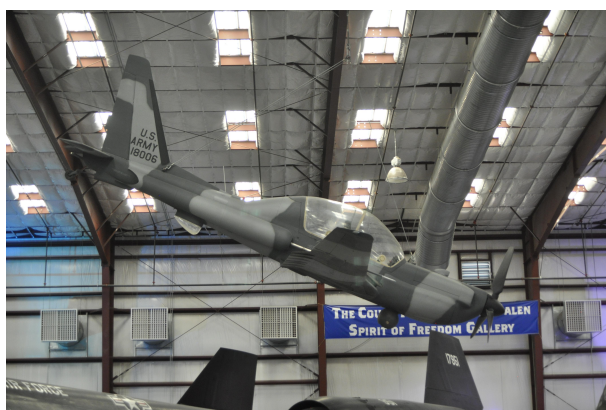


QT-2

(photo credit: Lockheed)

Ultimately, Lockheed developed the YO-3A for the U.S. Army and nine of them were sent to Vietnam where they proved valuable as safe low altitude observation aircraft. Their engines were muffled and they used a slow turning propeller. Operating at night, their low acoustical footprint and camouflage made them virtually undetectable.

The YO-3s were declared surplus and were released to other agencies and NASA, the FBI, and the Louisiana Department of Wildlife and Fisheries utilized their stealthy characteristics noise tests and the pursuit of criminals.



YO-3A at Pima. This aircraft had been previously used by the Louisiana Department of Wildlife and Fisheries before restoration in its war paint.



The Pima YO-3A in storage before its restoration.

At least one YO-3A ended up in private hands. The editor observed it at the old Flushing Airport, sans engine and rudder.



The YO-3 at Flushing. The Editor's grandparents lived in the apartments visible in the background and their windows allowed a fair view of the airport. The Editor would spend time observing aircraft making circuits and bumps and on occasion, sally forth across the six lane highway to visit the cast of characters who roosted at Flushing.

One of X-26B aircraft was converted back to the SGS-2-32 configuration and is still being flown at a glider facility in Boulder, Colorado. Most X planes have short service lives but the X-26 is still flying at Pax River and is approaching its "diamond" anniversary as a working X-Plane.

Grumman X-29

The X-29 was an experiment to study a number of novel aircraft features; the obvious forward swept wing and canard configuration, a fly-by-wire flight control system, variable camber wing surfaces, and composite structural materials.



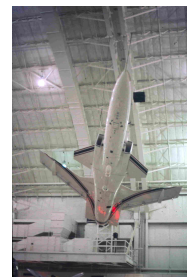
X-29A at USAF Research and Development Hangar

First flown in 1984, two aircraft were built and successfully used in USAF and NASA test programs for seven years before retirement. As with some other X-Planes, the X-29 was fashioned from parts of a Northrop F-5 and a General Dynamics F-16.



X-29A on display at Dryden Flight Research Center, Edwards AFB.

Forward sweep with canards was first tried by Dipl. Ing. Herman Wocke and his Junkers Ju-287 first flew in 1944. Later, he designed the *Hamburger Flugzeugbau* HFB-320 Hansa Jet, a business jet of which about 50 were sold. However, it should be noted that the Hansa Jet used a conventional empennage rather than the canard configuration. Some high performance sail planes employ forward swept wings also.



An X-29 replica at the Nation Air and Space Museum illustrates the forward-swept wings and the canard configuration.

The Soviet Union's Sukhoi design bureau produced one similar aircraft, the Su-47 *Berkut* which was also employed as a technology demonstrator.

Forward sweep reduces span-wise air flow which improve aileron effectiveness. In the Hansa Jet, it allowed the spar box to which the wings are attached to be moved further aft which increases cabin space. For fighter aircraft, the increased instability allows for more aggressive maneuvering but this requires a computer control.

Forward swept wings also have a tendency to bend upward during turns and impose high loads on the structure. The development and use of composite materials provided a partial high strength, lighter weight solution but at a higher price.

The successful X-29 program produced data for future developments in aircraft materials, control systems, and aerodynamics and met the expectations of the sponsors.